

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID: SSSPTA1642BJF

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

FILE 'HOME' ENTERED AT 16:10:04 ON 19 JUN 2006

=> file pctfull
COST IN U.S. DOLLARS
SINCE FILE ENTRY TOTAL
SESSION
FULL ESTIMATED COST 0.21 0.21

FILE 'PCTFULL' ENTERED AT 16:10:19 ON 19 JUN 2006
COPYRIGHT (C) 2006 Univentio

FILE LAST UPDATED: 13 JUN 2006 <20060613/UP>
MOST RECENT UPDATE WEEK: 200623 <200623/EW>
FILE COVERS 1978 TO DATE

>>> IMAGES ARE AVAILABLE ONLINE AND FOR EMAIL-PRINTS <<<

>>> NEW IPC8 DATA AND FUNCTIONALITY NOW AVAILABLE IN THIS FILE.
SEE
<http://www.stn-international.de/stndatabases/details/IPC-Reform.html> >>>

>>> FOR CHANGES IN PCTFULL PLEASE SEE HELP CHANGE
(last updated April 10, 2006) <<<

=> s WO0071135/pn
L1 0 WO0071135/PN
 (WO71135/PN)

=> s WO 0071135/pn
L2 O WO 0071135/PN
 (WO71135/PN)

=> s WO200071135/pn
L3 1 WO200071135/PN
 (WO200071135/PN)

=> s enhance? or synerg? or additi?
279226 ENHANCE?
36077 SYNERG?
711063 ADDITI?
L4 734288 ENHANCE? OR SYNERG? OR ADDITI?

=> s 14 and 13
L5 1 L4 AND L3

=> d ibib kwic

L5 ANSWER 1 OF 1 PCTFULL COPYRIGHT 2006 Univentio on STN
ACCESSION NUMBER: 2000071135 PCTFULL ED 20020515
TITLE (ENGLISH): ANTI-TUMOR COMPRISING BOROPROLINE COMPOUNDS
TITLE (FRENCH): AGENTS ANTI-TUMORALES CONTENANT DES COMPOSES DE
BOROPROLINE
INVENTOR(S): WALLNER, Barbara, P.;
MILLER, Glenn
PATENT ASSIGNEE(S): POINT THERAPEUTICS, INC.
LANGUAGE OF PUBL.: English
DOCUMENT TYPE: Patent
PATENT INFORMATION:

	NUMBER	KIND	DATE
DESIGNATED STATES	WO 2000071135	A1	20001130
W:	AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN		

MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR
TT TZ UA UG UZ VN YU ZA ZW GH GM KE LS MW MZ SD SL SZ
TZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK
ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM
GA GN GW ML MR NE SN TD TG
APPLICATION INFO.: WO 2000-US14505 A 20000525
PRIORITY INFO.: US 1999-60/135,861 19990525
PI WO 2000071135 A1 20001130

DETD . . . rate of division
io and iTi. some cases uncontrolled growth. One examplo o 'i a
proliferative cell disorder is a
tumor. In addition to posing a serious health risk in and of
themselves, primary malignant
tumors are particularly problematic given their tendency to invade. . .

In addition to agents of Formula 11, other agents useful in
the invention include those
in which the proline residue in Formula 11. . .

In addition, agents can be selected that are effective as
anti-proliferative agents or as
anti-angiogenic agents but are relatively ineffective as hemopoietic
cell stimulatory. . .

In addition, agents of Formula I can be selected that are
effective as anti-proliferative
agents but are relatively ineffective as hemopoietic cell stimulatory.

. . .
1,3-butane diol. Among the
acceptable vehicles and solvents that may be employed are water,
Ringer's solution, and
isotonic sodium chloride solution. In addition, sterile, fixed
oils are conventionally employed
as a solvent or suspending medium. For this purpose, any bland fixed oil
may be employed
including synthetic mono- or di-glycerides. In addition, fatty
acids such as oleic acid may be
used in the preparation of injectables. Carrier formulations suitable
for oral, subcutaneous,
intravenous, intramuscular,. . .

. . .
vehicles include fluid and nutrient replenishers, electrolyte
replenishers
(such as those based on Ringer's dextrose), and the like. Preservatives
and other additives
may also be present such as, for example, antimicrobials, anti-oxidants,
chelating compounds,
and inert gases and the like. The pharmaceutical compositions may. . .

. . .
poly(valeric acid), and poly(lactide-cocaprolactone), and natural
polymers such as
alginate and other polysaccharides including dextran and cellulose,
collagen, chemical
derivatives thereof (substitutions, additions of chemical
groups, for example, alkyl, alkylene,
hydroxylations, oxidations, and other modifications routinely made by
those skilled in the
art), albumin and. . .

. . .
active component permeates at a
controlled rate from a polymer such as described in U.S. Patent Nos.

3,854,480, 5,133,974
and 5,407,686. In addition, pump-based hardware delivery systems can be used, some of which are adapted for implantation.

levels of IL-6 are secreted from bone marrow stromal cells of D+ and D- rats. Moreover, IL-6 levels for both strains were

enhanced by the addition of PT Bone marrow stromal cells were established from the long bones of 3 Fischer D+ and D- rats as described. . .

with the WEHI- 1 64 fibrosarcoma demonstrated that PT- I 00 could suppress the growth of an established s.c. tumor. In addition, when PT- I 00 administration was started shortly after implantation of VVEHI- 1 64 on day 2, it was found that not. . .

CLMEN. . . of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1 . -1 As all required additional search fees were timely paid by the applicant, this International Search Report covers all F searchable claims.

2 As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3 As only some of the required additional search fees were timely paid by the applicant, this International Search Report F covers only those claims for which fees were. . .

4 F1 No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest E1The additional search fees were accompanied by the applicant's protest.

F-1 No protest accompanied the payment of additional search fees.

Form PCT/ISA/21 0 1continuation of first sheet (1)) (July 1998)

INTERNATIONAL SEARCH REPORT

International Application No. PCTAis 00 /14505

FURTHER INFORMATION CONTINUED. . .

=>

---Logging off of STN---

=>

Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	3.13	3.34

STN INTERNATIONAL LOGOFF AT 16:11:39 ON 19 JUN 2006

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1642BJF

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * Welcome to STN International * * * * * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 FEB 27 New STN AnaVist pricing effective March 1, 2006
NEWS 4 APR 04 STN AnaVist \$500 visualization usage credit offered
NEWS 5 MAY 10 CA/CAplus enhanced with 1900-1906 U.S. patent records
NEWS 6 MAY 11 KOREPAT updates resume
NEWS 7 MAY 19 Derwent World Patents Index to be reloaded and enhanced
NEWS 8 MAY 30 IPC 8 Rolled-up Core codes added to CA/CAplus and USPATFULL/USPAT2
NEWS 9 MAY 30 The F-Term thesaurus is now available in CA/CAplus
NEWS 10 JUN 02 The first reclassification of IPC codes now complete in INPADOC
NEWS 11 JUN 26 TULSA/TULSA2 reloaded and enhanced with new search and display fields
NEWS 12 JUN 28 Price changes in full-text patent databases EPFULL and PCTFULL

NEWS EXPRESS FEBRUARY 15 CURRENT VERSION FOR WINDOWS IS V8.01a,
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 26 JUNE 2006.
V8.0 AND V8.01 USERS CAN OBTAIN THE UPGRADE TO V8.01a AT
<http://download.cas.org/express/v8.0-Discover/>

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS LOGIN Welcome Banner and News Items
NEWS IPC8 For general information regarding STN implementation of IPC 8
NEWS X25 X.25 communication option no longer available after June 2006

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

* * * * * * * * * STN Columbus * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 08:17:16 ON 29 JUN 2006

=> file dgene
COST IN U.S. DOLLARS
FULL ESTIMATED COST

SINCE FILE ENTRY	TOTAL SESSION
0.21	0.21

FILE 'DGENE' ENTERED AT 08:18:01 ON 29 JUN 2006
COPYRIGHT (C) 2006 THE THOMSON CORPORATION

FILE LAST UPDATED: 16 JUN 2006 <20060616/UP>

DGENE CURRENTLY CONTAINS 7,951,482 BIOSEQUENCES

>>> ONLINE THESAURUS AVAILABLE IN /PACO <<<

>>> DOWNLOAD THE DGENE WORKSHOP MANUAL:

http://www.stn-international.de/training_center/bioseq/dgene_wm.pdf

>>> DOWNLOAD COMPLETE DGENE HELP AS PDF:

http://www.stn-international.de/training_center/bioseq/dgene_help.pdf <<<

>>> DOWNLOAD DGENE BLAST/GETSIM FREQUENTLY ASKED QUESTIONS:

<http://www.stn-international.de/service/faq/dgenefaq.pdf> <<<

=> file pctfull

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	1.22	1.43

FILE 'PCTFULL' ENTERED AT 08:18:10 ON 29 JUN 2006

COPYRIGHT (C) 2006 Univentio

FILE LAST UPDATED: 27 JUN 2006 <20060627/UP>

MOST RECENT UPDATE WEEK: 200625 <200625/EW>

FILE COVERS 1978 TO DATE

>>> IMAGES ARE AVAILABLE ONLINE AND FOR EMAIL-PRINTS <<<

>>> NEW IPC8 DATA AND FUNCTIONALITY NOW AVAILABLE IN THIS FILE.

SEE

[>>>](http://www.stn-international.de/stndatabases/details/ipc-reform.html)

>>> FOR CHANGES IN PCTFULL PLEASE SEE HELP CHANGE
(last updated April 10, 2006) <<<

>>> NEW PRICES IN PCTFULL AS OF 01 JULY 2006. FOR DETAILS,
PLEASE SEE HELP COST <<<

=> s boropro or proboro or valboropro

37 BOROPRO
1 BOROPROS
37 BOROPRO
(BOROPRO OR BOROPROS)
1 PROBORO
5 VALBOROPRO

L1 39 BOROPRO OR PROBORO OR VALBOROPRO

=> s antibod? and l1

88922 ANTIBOD?
L2 24 ANTIBOD? AND L1

=> s additive or synerg? or enhanc?

61194 ADDITIVE
86645 ADDITIVES
117711 ADDITIVE
(ADDITIVE OR ADDITIVES)
36272 SYNERG?
295082 ENHANC?

L3 357416 ADDITIVE OR SYNERG? OR ENHANC?

=> s 13 and 12
L4 22 L3 AND L2

=> s 14 not py>2001
518014 PY>2001
L5 12 L4 NOT PY>2001

=> s 14 not py>2000
616501 PY>2000
L6 10 L4 NOT PY>2000

=> s 16 and cd20
2487 CD20
L7 0 L6 AND CD20

=> s 16 and lymphoma
15114 LYMPHOMA
7723 LYMPHOMAS
17697 LYMPHOMA
(LYMPHOMA OR LYMPHOMAS)
L8 3 L6 AND LYMPHOMA

=> d ibib 1-3

L8 ANSWER 1 OF 3 PCTFULL COPYRIGHT 2006 Univentio on STN
ACCESSION NUMBER: 1999017799 PCTFULL ED 20020515
TITLE (ENGLISH): CYTOPLASMIC DIPEPTIDYLPEPTIDASE IV FROM HUMAN T-CELLS
TITLE (FRENCH): DIPEPTIDYLPEPTIDASE IV CYTOPLASMIQUE PROVENANT DE
INVENTOR(S): LYMPHOCYTES T D'ORIGINE HUMAINE
BOEHRINGER INGELHEIM PHARMACEUTICALS, INC.;
HUBER, Brigitte, T.;
UNDERWOOD, Robert;
KABCENELL, Alisa, K.;
SNOW, Roger, J.
PATENT ASSIGNEE(S): TRUSTEES OF TUFTS COLLEGE ET AL.
LANGUAGE OF PUBL.: English
DOCUMENT TYPE: Patent
PATENT INFORMATION:
NUMBER KIND DATE

WO 9917799 A1 19990415
DESIGNATED STATES
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE
ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC
LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU
SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW GH GM
KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE
CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ
CF CG CI CM GA GN GW ML MR NE SN TD TG
APPLICATION INFO.: WO 1998-US20968 A 19981006
PRIORITY INFO.: US 1997-08/944,265 19971006

L8 ANSWER 2 OF 3 PCTFULL COPYRIGHT 2006 Univentio on STN
ACCESSION NUMBER: 1999016864 PCTFULL ED 20020515
TITLE (ENGLISH): STIMULATION OF HEMATOPOIETIC CELLS IN VITRO
TITLE (FRENCH): STIMULATION DE CELLULES HEMATOPOIETIQUES IN VITRO
INVENTOR(S): BACHOVCHIN, William;
WALLNER, Barbara
PATENT ASSIGNEE(S): POINT THERAPEUTICS, INC.
LANGUAGE OF PUBL.: English
DOCUMENT TYPE: Patent
PATENT INFORMATION:
NUMBER KIND DATE

WO 9916864

A1 19990408

DESIGNATED STATES

W:

AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE
ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ
LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO
RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW GH
GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT
BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF
BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

APPLICATION INFO.:

WO 1998-US20343 A 19980929

PRIORITY INFO.:

US 1997-60/060,306 19970929

L8 ANSWER 3 OF 3

PCTFULL COPYRIGHT 2006 Univentio on STN

ACCESSION NUMBER:

1998024474 PCTFULL ED 20020514

TITLE (ENGLISH):

INHIBITION OF INVASIVE REMODELLING

TITLE (FRENCH):

INHIBITION DU REMODELAGE INVASIF

INVENTOR(S):

LUND, Leif, Roge;

DANO, Keld;

STEPHEN, Ross;

BRUENNER, Nils;

SOLBERG, Helene;

HOLST-HANSEN, Claus;

NIELSEN, John, Romer

PATENT ASSIGNEE(S):

FONDEN TIL FREMME AF EKSPERIMENTEL CANCERFORSKNING;

LUND, Leif, Roge;

DANO, Keld;

STEPHEN, Ross;

BRUENNER, Nils;

SOLBERG, Helene;

HOLST-HANSEN, Claus;

NIELSEN, John, Romer

English

Patent

LANGUAGE OF PUBL.:

DOCUMENT TYPE:

PATENT INFORMATION:

NUMBER	KIND	DATE
--------	------	------

WO 9824474	A1	19980611
------------	----	----------

DESIGNATED STATES

W:

AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE
ES FI GB GE GH HU ID IL IS JP KE KG KP KR KZ LC LK LR
LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE
SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW GH KE LS
MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE
DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI
CM GA GN ML MR NE SN TD TG

APPLICATION INFO.:

WO 1997-DK555 A 19971208

PRIORITY INFO.:

DK 1996-1402/96 19961206

=> d kwic 1-2

L8 ANSWER 1 OF 3

PCTFULL COPYRIGHT 2006 Univentio on STN

DETD . . . in therapy in which death of certain cells is therapeutically desirable. For example, in some T-cell neoplastic diseases, e.g., certain leukemias and lymphomas, it may be desirable to de-protect the cancerous T-cells from endogenous DPLVb, by inhibiting the enzyme and thus promoting the death. . .

The purified DPLVb of the invention can also be used to make antibodies (polyclonal, monoclonal, or recombinant) using conventional

methods, involving immunization of, e.g., rabbits, mice, or human volunteers.

The antibodies can be used in standard ELISA assays to measure DPlVb levels
in patients being tested for diseases which potentially involve increased. . .

We observed a striking increase in the number of dead cells in cultures containing the L-isomer of Val-boroPro (VbP), an inhibitor of dipeptidyl peptidase IV (DPPIV), compared to cultures containing media alone or the inactive D-isomer of the inhibitor, d-Val-d-boroPro--a toxicity control.

Use as TheraDeutic
Because the purified DPlVb enzyme of the invention is protective of death in normal resting human T-cells, it can be administered therapeutically to patients in need of immune system enhancement, and in particular protection of clinically important T-cell subsets such as CD4' cells. Such patients include 1 5 AIDS patients whose CD4'. . .

Antibodies Directed against DPlVb
The purified DPlVb of the invention, or fragments thereof, can be used to generate polyclonal or monoclonal antibodies specific for DPlVb, using conventional techniques. Such antibodies can be used in any of the many known conventional immunoassay formats to measure DPlVb levels in biological samples, e.g., samples of. . .

CLMEN 5 An antibody specific for DPlVb.

L8 ANSWER 2 OF 3 PCTFULL COPYRIGHT 2006 Univentio on STN

DETD . . . thymocytes in vitro. Other binding molecules which selectively bind to DPlV and have the ability to stimulate hematopoietic cells include monoclonal antibodies, polyclonal antibodies and fragments of the foregoing which are capable of. (1) binding to DPlV, and (2) stimulating hematopoietic cells and/or thymocytes in. . .

. . . well were incubated in 96 microtiter plates in CellGro Iscove's Modified Dulbecco's Medium (IMDM) and with or without (control)'the indicated concentrations of Pro-boroPro for 4 days. At the end of this incubation period, the cells were counted under the microscope. The cultures without Pro- boroPro contained 10,000 cells at the end of 4 days. The cultures containing Pro-boroPro had 53,000 cells at 10⁻⁶M, 38,000 cells at 10⁻⁵M and 42,000 cells at 10⁻⁴M. The cultures containing a growth factor mix (GF). . . 2 Umbilical cord blood cells were incubated under essentially the same conditions as described in the legend to figure 1, except that Val-boroPro was used as

stimulant at the indicated concentrations. After 4 day incubation.

A: Bulk Umbilical Cord Blood; Total Cell Counts. Control culture: 0.2 x 10⁶ cells;
Growth factors 5 x 10⁶ cells; Val-boroPro: R106 (10⁻⁶M); R106 (10⁻⁸M); 4x10⁴(10⁻⁸M).

coupled beads
for positive selection. Cell preparation contained 98% CD34+ cells.
After 4 days of
incubation the culture containing 1 0- M Val-boroPro contained
8.5x 10⁶ cells, compared to
0.6x1 06 cells in the control and 4x1 06 cells in the incubation with growth. . .

C: Percent of CD34+ cells remaining after 4 day culture: Cultures incubated with Val-
boroPro contained between 10 and 15% of CD34+ cells after 4 day culture. Cultures incubated with Growth Factors had only 4% of CD34+ cells remaining (panel b). This indicated that Val-boroPro has a growth stimulatory effect on CD34+ cells in addition to an effect on the differentiation of CD34+ cells into mature peripheral blood cells. This is supported by the observation that culturing these CD34+ cells in the presence of Val-boroPro and growth factors does not change the % CD34+ cells in the culture from the percentage seen with Val-boroPro alone, although the total number of cell in this combined culture had increased to 55 x10⁶ cells as compared to 8.5 x10⁶ cells in the incubation with Val-boroPro alone (panel a).

Dimerization of Lys-boroPro (homoconjugate) dramatically increases the stimulation of bone marrow cell growth when compared to the effect of the monomeric form of Lys-boroPro.

Cultures were set up as described in the legend to Figure I except that Lys-boroPro and the homoconjugate were used, and incubated for 4 days.

Figure 4
Bone marrow cells were incubated as described in Figure I except that Val-boroPro and the homoconjugate were used in a 4 day culture.

A: Val-boroPro gave a similar expansion of bone marrow cells as the growth factor mix (GF), while the dinier more than doubled the. . .

B: (panel a): Isolated CD34+ cells (98% purity) incubated with Val-boroPro gave up to 20 fold increase in stimulation of cellular growth compared to an 18 fold increase with growth factors over that. . .

(panel b): Percent of CD34+ cells remaining in culture after a 4 day incubation period: control 63%; GF 5%; Val-boroPro, 43%; homodinier 10%. . .

a number of different methods. The most widely used is a positive immunological selection based on binding of these cells to anti-CD34-antibodies

immobilized on a solid support (Cellpro, Baxter). Other selection methods include negative selection where all cells not expressing CD34 are isolated away. . . .

500 ng/ml. The optimum concentration of each growth factor has to be determined for individual culture conditions since some growth factors act synergistically with other growth factors. As noted above, the methods of the invention exclude exogenously added cytokines and, instead, utilize DPIV inhibitors to. . . .

by observing a reduction in DPIV enzymatic activity following exposure to the non-active site binding agent. Exemplary non-active site binding agents include

antibodies to DPIV and fragments thereof which selectively bind to DPIV in a manner that results in the ability of the binding. . . .

PCT/GB94/02615, DPIV-Serine Protease Inhibitors, Applicant Ferring V.V. (Ferring). Representative examples of the

foregoing inhibitors are described below and include the transition-state analog-based

inhibitors Xaa-boroPro, include Lys-BoroPro, Pro-BoroPro and Ala-BoroPro in which

boroPro refers to the analog of proline in which the carboxylate group (COOH) is replaced with a boronyl group [B(OH)₂]. Alternative active-site. . . .

the ability of the Val-boroProline compound to bind to CD26. In a most preferred embodiment, the compound of

the invention is Val-boroPro (also referred to as PT-100).

Because of the chiral carbon

atoms present on the amino acid residues and on the carbon attached to the boron atom, Val-

boration can exist in multiple isomeric forms: (a) L-Val-S-boroPro, (b) L-Val-R-boroPro, (c)

D-Val-S-boroPro, and (d) D-Val-R-boroPro. More

preferably, the compound is L-Val-S-

boration or L-Val-R-boroPro. In an analogous manner, the other boroProline compounds of

the invention can exist in multiple isomeric forms; however, in general, the forms in which

each amino acid chiral center has an L- configuration and the boroPro is in the R or S

configuration are the preferred forms of the compounds.

Thus, the invention provides an improved method which synergistically combines hematopoietic cell stimulation with antigen-specific T cell expansion ex vivo. This would be therapeutic for eliciting immune responses against residual tumor cells, metastatic cells, or to

enhance the anti-tumor T cell activity in allogeneic transplants. It can also be used for ex vivo expansion of peripheral memory T. . . .

skin, breast, cervix,
uteri, uterus, ovary, bladder, kidney, brain and other parts of the
nervous system, thyroid,
prostate, testes, Hodgkin's disease, non-Hodgkin's lymphoma,
multiple myeloma and
leukemia. Viral proteins associated with tumors would be those from the
classes of viruses
noted above. Antigens characteristic of. . .

Specific examples of tumor antigens include: proteins such as
Ig-idiotype of B cell
lymphoma, mutant cyclin-dependent kinase 4 of melanoma, Pmel-
17 (gp 100) of melanoma,
MART-1 (Melan-A) of melanoma, p 1. . .

. . .
IO, CD26, CD28, CD40, CD45, B7.1 and B7
According to yet other embodiments, the second targeting moiety is an
antibody or antibody
fragment that selectively binds to an epitope expressed on the cell
surface. The epitope can
be a portion of any of the. . .

. . .
inhibitor inhibits such DPIV
enzymatic activity. Preferably, such binding agents are isolated
polypeptides which
selectively bind the DPIV. Isolated binding polypeptides include
antibodies and fragments
of antibodies (e.g. Fab, F(ab)2, Fd and antibody
fragments which include a CDR3 region
which binds selectively to the DPIV). Preferred isolated binding
polypeptides are those that
bind to an. . .

The invention, therefore, involves the use of antibodies or
fragments of antibodies
which have the ability to selectively bind to DPIV and stimulate
hematopoietic cells and/or
thymocytes under the conditions disclosed herein. Antibodies
include polyclonal and
monoclonal antibodies, prepared according to conventional
methodology.

Significantly, as is well-known in the art, only a small portion of an
antibody
molecule, the paratope, is involved in the binding of the
antibody to its epitope (see, in
general, Clark, W.R. (1986) *The Experimental Foundations of Modern
Immunology* Wiley &
Sons, Inc., New York; Roitt, I.. . . Oxford). The pFc' and Fc regions,
for example, are effectors of the complement
cascade but are not involved in antigen binding. An antibody
from which the pFc' region has
been enzymatically cleaved, or which has been produced without the pFc'
region, designated
an F(ab)1 fragment, retains both of the antigen binding sites of an intact
antibody. Similarly,
an antibody from which the Fc region has been enzymatically
cleaved, or which has been
produced without the Fc region, designated an Fab fragment, retains one
of the antigen
binding sites of an intact antibody molecule. Fab fragments
consist of a covalently bound
antibody light chain and a portion of the antibody
heavy chain denoted Fd. The Fd fragments

are the major determinant of antibody specificity (a single Fd fragment may be associated with up to ten different light chains without altering antibody specificity) and Fd fragments retain epitope-binding ability in isolation.

Within the antigen-binding portion of an antibody, as is well-known in the art, there are complementarity determining regions (CDRs), which directly interact with the epitope of the antigen, and. . .

The CDRs, and in particular the CDR3 regions, and more particularly the heavy chain CDR3, are largely responsible for antibody specificity.

It is now well-established in the art that the non-CDR regions of a mammalian

antibody may be replaced with similar regions of conspecific or heterospecific antibodies while retaining the epitopic specificity of the original antibody. This is most clearly manifested in the development and use of humanized antibodies in which non-human CDRs are covalently joined to human FR and/or Fc/pFc' regions to produce a functional

antibody. Thus, for example, PCT International Publication Number WO 92/04381 teaches the production and use of humanized murine RSV antibodies in which at least a portion of the murine FR regions have been replaced by FR regions of human origin. Such antibodies, including fragments of intact antibodies with antigen-binding ability, are often referred to as chimeric antibodies.

to one of ordinary skill in the art, the present invention also provides for F(ab₁, Fab, Fv and Fd fragments; chimeric antibodies in which the Fe and/or FR and/or CDR1 and/or CDR2 and/or light chain CDR3 regions have been replaced by homologous human or non-human sequences; chimeric F(ab₁) fragment antibodies in which the FR and/or CDR1 and/or CDR2 and/or light chain CDR3 regions have been replaced by homologous human or non-human sequences; chimeric Fab fragment antibodies in which the FR and/or CDR1 and/or CDR2 and/or light chain CDR3 regions have been replaced by homologous human or non-human sequences; and chimeric Fd fragment antibodies in which the FR and/or CDR1 and/or CDR2 regions have been replaced by homologous human or non-human sequences. The present invention also includes so-called single chain antibodies.

and type that bind specifically to DPIV and inhibit its functional activity. These polypeptides may be derived also from sources other than antibody technology. For example, such polypeptide binding agents can be provided by degenerate peptide libraries which can be readily prepared in solution, . . .

the matrix permits covalent coupling to free amino groups. A polystyrene derivatized to carry carboxylate groups can be covalently attached directly to Lys-boroPro through coupling to the free E amino group of the Lys side chain, or through a spacer linker which has a free amino group. Alternatively, a polystyrene derivatized to carry an amino group can be attached to, for example, Lys-boroPro through coupling via a spacer linker containing two carboxylate groups, one to couple to the F₋ amino group of Lys-boroPro, the other to the amino group of the amino-derivatized polystyrene.

the attachment of the compounds of the invention to insoluble matrices. Biotin can easily be attached to the E amino group of Lys-boroPro for example and the resulting conjugate will adhere with high affinity to avidin or strepavidin. A wide assortment of insolubilized derivatives of . . .

well or 24 well microtiter plates) at 104 cells/ml in CellGro Iscove's Modified Dulbecco's medium (Meditech) containing kanamycin (5ug/ml), desired concentration of Xaa-boroPro or other compound of the invention, and the absence or presence of Giant Cell Tumor-Conditioned Medium (GCT-CM, Origen) as source of growth factors. Xaa-boroPro or other compounds of the invention should be diluted to medium and added to culture only after cells are in culture tube.

CLMEN 5 The method of claim 1, wherein the inhibitor of DAPI is selected from the group consisting of a Lys-boroPro monomer, a Pro-boroPro monomer, a Val-boroPro monomer and a Lys-boroPro conjugate.

=> d his

(FILE 'HOME' ENTERED AT 08:17:16 ON 29 JUN 2006)

FILE 'DGENE' ENTERED AT 08:18:01 ON 29 JUN 2006

FILE 'PCTFULL' ENTERED AT 08:18:10 ON 29 JUN 2006

L1 39 S BOROPRO OR PROBORO OR VALBOROPRO
L2 24 S ANTIBOD? AND L1
L3 357416 S ADDITIVE OR SYNERG? OR ENHANC?
L4 22 S L3 AND L2
L5 12 S L4 NOT PY>2001
L6 10 S L4 NOT PY>2000
L7 0 S L6 AND CD20
L8 3 S L6 AND LYMPHOMA

=> s l4 and CD20
 2487 CD20
L9 2 L4 AND CD20

=> d ibib 1-2

L9 ANSWER 1 OF 2 PCTFULL COPYRIGHT 2006 Univentio on STN
 ACCESSION NUMBER: 2004004661 PCTFULL ED 20040122 EW 200403
 TITLE (ENGLISH): BOROPROLINE COMPOUND COMBINATION THERAPY
 TITLE (FRENCH): POLYTHERAPIE A BASE DE COMPOSES DE BOROPROLINE
 INVENTOR(S): ADAMS, Sharlene, 45 Rosemont Avenue, Waltham, MA 02451,
 US;
 MILLER, Glenn, T., 63 Bearhill Road, Merrimac, MA
 01860, US;
 JESSON, Michael, I., 19 Plain Street, Hopedale, MA
 01747, US;
 JONES, Barry, 80 Wndell, No.3, Cambridge, MA 02138, US
 PATENT ASSIGNEE(S): POINT THERAPEUTICS, INC., 125 Summer Street, Suite
 1840, Boston, MA 02111, US [US, US]
 AGENT: TREVISAN, Maria, A.\$, Wolf, Greenfield & Sacks, P.C.,
 600 Atlantic Avenue, Boston, MA 02210\$, US
 LANGUAGE OF FILING: English
 LANGUAGE OF PUBL.: English
 DOCUMENT TYPE: Patent
 PATENT INFORMATION:

NUMBER	KIND	DATE
WO 2004004661	A2	20040115

 DESIGNATED STATES
 W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR
 CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID
 IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD
 MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD
 SE SG SK SL SY TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA
 ZM ZW
 RW (ARIPO): GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
 RW (EAPO): AM AZ BY KG KZ MD RU TJ TM
 RW (EPO): AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU
 MC NL PT RO SE SI SK TR
 RW (OAPI): BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
 APPLICATION INFO.: WO 2003-US21547 A 20030709
 PRIORITY INFO.: US 2002-60/394,856 20020709
 US 2002-60/414,978 20021001
 US 2003-60/466,435 20030428

L9 ANSWER 2 OF 2 PCTFULL COPYRIGHT 2006 Univentio on STN
 ACCESSION NUMBER: 2004004658 PCTFULL ED 20040122 EW 200403
 TITLE (ENGLISH): METHODS AND COMPOSITIONS RELATING TO ISOLEUCINE
 BOROPROLINE COMPOUNDS
 TITLE (FRENCH): PROCEDES ET COMPOSITIONS AYANT TRAIT A DES COMPOSES
 D'ISOLEUCINE BOROPROLINE
 INVENTOR(S): ADAMS, Sharlene, 45 Rosemont Avenue, Waltham, MA 02451,
 US;
 MILLER, Glenn, T., 63 Bearhill Road, Merrimac, MA
 01860, US;
 JESSON, Michael, I., 19 Plain Street, Hopedale, MA
 01747, US;
 JONES, Barry, 80 Wendell Street, #3, Cambridge, MA
 02138, US
 PATENT ASSIGNEE(S): POINT THERAPEUTICS, INC., 125 Summer Street, Suite
 1840, Boston, MA 02111, US [US, US]
 AGENT: TREVISAN, Maria, A.\$, Wolf, Greenfield & Sacks, P.C.,
 600 Atlantic Avenue, Boston, MA 02210\$, US
 LANGUAGE OF FILING: English
 LANGUAGE OF PUBL.: English
 DOCUMENT TYPE: Patent
 PATENT INFORMATION:

NUMBER	KIND	DATE
--------	------	------

WO 2004004658

A2 20040115

DESIGNATED STATES

W:

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR
CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID
IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD
MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD
SE SG SK SL SY TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA
ZW

RW (ARIPO): GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

RW (EAPO): AM AZ BY KG KZ MD RU TJ TM

RW (EPO): AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU
MC NL PT RO SE SI SK TR

RW (OAPI): BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

APPLICATION INFO.: WO 2003-US21405 A 20030709

PRIORITY INFO.: US 2002-60/394,856 20020709

US 2002-60/414,978 20021001

US 2003-60/466,435 20030428

=> s anti () CD20
177657 ANTI
177 ANTIS
177694 ANTI
(ANTI OR ANTIS)
2487 CD20
L10 1049 ANTI (W) CD20

=> d his

(FILE 'HOME' ENTERED AT 08:17:16 ON 29 JUN 2006)

FILE 'DGENE' ENTERED AT 08:18:01 ON 29 JUN 2006

FILE 'PCTFULL' ENTERED AT 08:18:10 ON 29 JUN 2006

L1 39 S BOROPRO OR PROBORO OR VALBOROPRO
L2 24 S ANTIBOD? AND L1
L3 357416 S ADDITIVE OR SYNERG? OR ENHANC?
L4 22 S L3 AND L2
L5 12 S L4 NOT PY>2001
L6 10 S L4 NOT PY>2000
L7 0 S L6 AND CD20
L8 3 S L6 AND LYMPHOMA
L9 2 S L4 AND CD20
L10 1049 S ANTI () CD20

=> s l10 and l4
L11 2 L10 AND L4

=> d ibib 1-2

L11 ANSWER 1 OF 2 PCTFULL COPYRIGHT 2006 Univentio on STN
ACCESSION NUMBER: 2004004661 PCTFULL ED 20040122 EW 200403
TITLE (ENGLISH): BOROPROLINE COMPOUND COMBINATION THERAPY
TITLE (FRENCH): POLYTHERAPIE A BASE DE COMPOSES DE BOROPROLINE
INVENTOR(S): ADAMS, Sharlene, 45 Rosemont Avenue, Waltham, MA 02451,
US;
MILLER, Glenn, T., 63 Bearhill Road, Merrimac, MA
01860, US;
JESSON, Michael, I., 19 Plain Street, Hopedale, MA
01747, US;
JONES, Barry, 80 Wndell, No.3, Cambridge, MA 02138, US
POINT THERAPEUTICS, INC., 125 Summer Street, Suite
1840, Boston, MA 02111, US [US, US]
AGENT: TREVISAN, Maria, A.S, Wolf, Greenfield & Sacks, P.C.,

LANGUAGE OF FILING: 600 Atlantic Avenue, Boston, MA 02210\$, US
LANGUAGE OF PUBL.: English
DOCUMENT TYPE: English
PATENT INFORMATION: Patent

NUMBER	KIND	DATE
WO 2004004661	A2	20040115

DESIGNATED STATES

W:

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR
CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID
IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD
MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD
SE SG SK SL SY TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA
ZW

RW (ARIPO): GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

RW (EAPO): AM AZ BY KG KZ MD RU TJ TM

RW (EPO): AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU
MC NL PT RO SE SI SK TR

RW (OAPI): BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

APPLICATION INFO.: WO 2003-US21547 A 20030709

PRIORITY INFO.: US 2002-60/394,856 20020709

US 2002-60/414,978 20021001

US 2003-60/466,435 20030428

L11 ANSWER 2 OF 2

ACCESSION NUMBER: 2004004658 PCTFULL ED 20040122 EW 200403

TITLE (ENGLISH): METHODS AND COMPOSITIONS RELATING TO ISOLEUCINE
BOROPROLINE COMPOUNDS

TITLE (FRENCH): PROCEDES ET COMPOSITIONS AYANT TRAIT A DES COMPOSES
D'ISOLEUCINE BOROPROLINE

INVENTOR(S): ADAMS, Sharlene, 45 Rosemont Avenue, Waltham, MA 02451,
US;

MILLER, Glenn, T., 63 Bearhill Road, Merrimac, MA
01860, US;

JESSON, Michael, I., 19 Plain Street, Hopedale, MA
01747, US;

JONES, Barry, 80 Wendell Street, #3, Cambridge, MA
02138, US

POINT THERAPEUTICS, INC., 125 Summer Street, Suite
1840, Boston, MA 02111, US [US, US]

TREVISAN, Maria, A.S., Wolf, Greenfield & Sacks, P.C.,
600 Atlantic Avenue, Boston, MA 02210\$, US

LANGUAGE OF FILING:
LANGUAGE OF PUBL.: English
DOCUMENT TYPE: English
PATENT INFORMATION: Patent

NUMBER	KIND	DATE
WO 2004004658	A2	20040115

DESIGNATED STATES

W:

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR
CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID
IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD
MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD
SE SG SK SL SY TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA
ZW

RW (ARIPO): GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

RW (EAPO): AM AZ BY KG KZ MD RU TJ TM

RW (EPO): AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU
MC NL PT RO SE SI SK TR

RW (OAPI): BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

APPLICATION INFO.: WO 2003-US21405 A 20030709

PRIORITY INFO.: US 2002-60/394,856 20020709

US 2002-60/414,978 20021001
US 2003-60/466,435 20030428

=> s boroproline
L12 28 BOROPROLINE

=> s l12 and l10
L13 2 L12 AND L10

=> d ibib 1-2

L13 ANSWER 1 OF 2 PCTFULL COPYRIGHT 2006 Univentio on STN
ACCESSION NUMBER: 2004004661 PCTFULL ED 20040122 EW 200403
TITLE (ENGLISH): BOROPROLINE COMPOUND COMBINATION THERAPY
TITLE (FRENCH): POLYTHERAPIE A BASE DE COMPOSES DE BOROPROLINE
INVENTOR(S): ADAMS, Sharlene, 45 Rosemont Avenue, Waltham, MA 02451,
US;
MILLER, Glenn, T., 63 Bearhill Road, Merrimac, MA
01860, US;
JESSON, Michael, I., 19 Plain Street, Hopedale, MA
01747, US;
JONES, Barry, 80 Wendell, No.3, Cambridge, MA 02138, US
PATENT ASSIGNEE(S): POINT THERAPEUTICS, INC., 125 Summer Street, Suite
1840, Boston, MA 02111, US [US, US]
AGENT: TREVISAN, Maria, A.S., Wolf, Greenfield & Sacks, P.C.,
600 Atlantic Avenue, Boston, MA 02210\$, US
LANGUAGE OF FILING: English
LANGUAGE OF PUBL.: English
DOCUMENT TYPE: Patent
PATENT INFORMATION:
NUMBER KIND DATE

WO 2004004661 A2 20040115
DESIGNATED STATES
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR
CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID
IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD
MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD
SE SG SK SL SY TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA
ZM ZW
RW (ARIPO): GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
RW (EAPO): AM AZ BY KG KZ MD RU TJ TM
RW (EPO): AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU
MC NL PT RO SE SI SK TR
RW (OAPI): BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
APPLICATION INFO.: WO 2003-US21547 A 20030709
PRIORITY INFO.: US 2002-60/394,856 20020709
US 2002-60/414,978 20021001
US 2003-60/466,435 20030428

L13 ANSWER 2 OF 2 PCTFULL COPYRIGHT 2006 Univentio on STN
ACCESSION NUMBER: 2004004658 PCTFULL ED 20040122 EW 200403
TITLE (ENGLISH): METHODS AND COMPOSITIONS RELATING TO ISOLEUCINE
BOROPROLINE COMPOUNDS
TITLE (FRENCH): PROCEDES ET COMPOSITIONS AYANT TRAIT A DES COMPOSES
D'ISOLEUCINE BOROPROLINE
INVENTOR(S): ADAMS, Sharlene, 45 Rosemont Avenue, Waltham, MA 02451,
US;
MILLER, Glenn, T., 63 Bearhill Road, Merrimac, MA
01860, US;
JESSON, Michael, I., 19 Plain Street, Hopedale, MA
01747, US;
JONES, Barry, 80 Wendell Street, #3, Cambridge, MA

PATENT ASSIGNEE(S): 02138, US
 POINT THERAPEUTICS, INC., 125 Summer Street, Suite
 1840, Boston, MA 02111, US [US, US]
 AGENT: TREVISAN, Maria, A.S., Wolf, Greenfield & Sacks, P.C.,
 600 Atlantic Avenue, Boston, MA 02210\$, US
 LANGUAGE OF FILING: English
 LANGUAGE OF PUBL.: English
 DOCUMENT TYPE: Patent
 PATENT INFORMATION:

	NUMBER	KIND	DATE
	WO 2004004658	A2	20040115

 DESIGNATED STATES
 W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR
 CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID
 IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD
 MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD
 SE SG SK SL SY TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA
 ZW
 RW (ARIPO): GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
 RW (EAPO): AM AZ BY KG KZ MD RU TJ TM
 RW (EPO): AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU
 MC NL PT RO SE SI SK TR
 RW (OAPI): BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
 APPLICATION INFO.: WO 2003-US21405 A 20030709
 PRIORITY INFO.: US 2002-60/394,856 20020709
 US 2002-60/414,978 20021001
 US 2003-60/466,435 20030428

```

=> s B () cell
      680860 B
      222708 CELL
      192476 CELLS
      252846 CELL
          (CELL OR CELLS)
L14      25810 B (W) CELL
  
```

```

=> d his
(FILE 'HOME' ENTERED AT 08:17:16 ON 29 JUN 2006)
  
```

```

FILE 'DGENE' ENTERED AT 08:18:01 ON 29 JUN 2006
  
```

```

FILE 'PCTFULL' ENTERED AT 08:18:10 ON 29 JUN 2006
L1      39 S BOROPRO OR PROBORO OR VALBOROPRO
L2      24 S ANTIBOD? AND L1
L3      357416 S ADDITIVE OR SYNERG? OR ENHANC?
L4      22 S L3 AND L2
L5      12 S L4 NOT PY>2001
L6      10 S L4 NOT PY>2000
L7      0 S L6 AND CD20
L8      3 S L6 AND LYMPHOMA
L9      2 S L4 AND CD20
L10     1049 S ANTI () CD20
L11     2 S L10 AND L4
L12     28 S BOROPROLINE
L13     2 S L12 AND L10
L14     25810 S B () CELL
  
```

```

=> s l14 and l2
L15      9 L14 AND L2
  
```

```

=> s l2 and CD20
  
```

2487 CD20
L16 2 L2 AND CD20

=> s l15 not py>2001
518014 PY>2001
L17 6 L15 NOT PY>2001

=> d ibib 1-6

L17 ANSWER 1 OF 6 PCTFULL COPYRIGHT 2006 Univentio on STN
ACCESSION NUMBER: 2001016301 PCTFULL ED 20020828
TITLE (ENGLISH): QUIESCENT CELL DIPEPTIDYL PEPTIDASE: A NOVEL
CYTOPLASMIC SERINE PROTEASE
TITLE (FRENCH): DIPEPTIDYL PEPTIDASE DE CELLULE QUIESCENTE: UNE
NOUVELLE SERINE PROTEASE CYTOPLASMIQUE
INVENTOR(S): HUBER, Brigitte, T.;
UNDERWOOD, Robert, H.
PATENT ASSIGNEE(S): TUFTS UNIVERSITY;
HUBER, Brigitte, T.;
UNDERWOOD, Robert, H.
DOCUMENT TYPE: Patent
PATENT INFORMATION:

NUMBER	KIND	DATE
WO 2001016301	A1	20010308

DESIGNATED STATES

W: AU CA JP AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC
NL PT SE

APPLICATION INFO.: WO 2000-US24052 A 20000901
PRIORITY INFO.: US 1999-09/388,413 19990901

L17 ANSWER 2 OF 6 PCTFULL COPYRIGHT 2006 Univentio on STN
ACCESSION NUMBER: 1999017799 PCTFULL ED 20020515
TITLE (ENGLISH): CYTOPLASMIC DIPEPTIDYLPEPTIDASE IV FROM HUMAN T-CELLS
DIPEPTIDYLPEPTIDASE IV CYTOPLASMIQUE PROVENANT DE
LYMPHOCYTES T D'ORIGINE HUMAINE
TITLE (FRENCH): BOEHRINGER INGELHEIM PHARMACEUTICALS, INC.;
INVENTOR(S): HUBER, Brigitte, T.;
UNDERWOOD, Robert;
KABCENELL, Alisa, K.;
SNOW, Roger, J.
PATENT ASSIGNEE(S): TRUSTEES OF TUFTS COLLEGE ET AL.
LANGUAGE OF PUBL.: English
DOCUMENT TYPE: Patent
PATENT INFORMATION:

NUMBER	KIND	DATE
WO 9917799	A1	19990415

DESIGNATED STATES

W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE
ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC
LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU
SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW GH GM
KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE
CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ
CF CG CI CM GA GN GW ML MR NE SN TD TG

APPLICATION INFO.: WO 1998-US20968 A 19981006
PRIORITY INFO.: US 1997-08/944,265 19971006

L17 ANSWER 3 OF 6 PCTFULL COPYRIGHT 2006 Univentio on STN
ACCESSION NUMBER: 1999016864 PCTFULL ED 20020515
TITLE (ENGLISH): STIMULATION OF HEMATOPOIETIC CELLS IN VITRO
TITLE (FRENCH): STIMULATION DE CELLULES HEMATOPOIETIQUES IN VITRO
INVENTOR(S): BACHOVCHIN, William;

PATENT ASSIGNEE(S): WALLNER, Barbara
 LANGUAGE OF PUBL.: POINT THERAPEUTICS, INC.
 DOCUMENT TYPE: English
 PATENT INFORMATION: Patent

NUMBER	KIND	DATE
WO 9916864	A1	19990408

DESIGNATED STATES
 W:
 AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE
 ES FI GB GD GE GH GM HR HU ID IL IS JP KE KG KP KR KZ
 LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO
 RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW GH
 GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT
 BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF
 BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
 WO 1998-US20343 A 19980929
 US 1997-60/060,306 19970929

APPLICATION INFO.:
 PRIORITY INFO.:

L17 ANSWER 4 OF 6
 ACCESSION NUMBER: PCTFULL COPYRIGHT 2006 Univentio on STN
 1998050066 PCTFULL ED 20020514
 TITLE (ENGLISH): POTENTIATION OF THE IMMUNE RESPONSE THROUGH DELIVERY OF
 COMPOUNDS BINDING A CYTOPLASMIC DIPEPTIDASE
 TITLE (FRENCH): POTENTIALISATION DE LA REPONSE IMMUNITAIRE PAR
 PRODUCTION DE COMPOSES SE FIXANT A UNE DIPEPTIDASE
 CYTOPLASMIQUE
 INVENTOR(S): HUBER, Brigitte, T.;
 SCHMITZ, Tracy;
 UNDERWOOD, Robert
 TRUSTEES OF TUFTS COLLEGE

PATENT ASSIGNEE(S):
 LANGUAGE OF PUBL.: English
 DOCUMENT TYPE: Patent
 PATENT INFORMATION:

NUMBER	KIND	DATE
WO 9850066	A1	19981112

DESIGNATED STATES
 W:
 AU CA JP AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC
 NL PT SE
 APPLICATION INFO.: WO 1998-US8838 A 19980430
 PRIORITY INFO.: US 1997-8/852,395 19970507

L17 ANSWER 5 OF 6
 ACCESSION NUMBER: PCTFULL COPYRIGHT 2006 Univentio on STN
 1998024474 PCTFULL ED 20020514
 TITLE (ENGLISH): INHIBITION OF INVASIVE REMODELLING
 TITLE (FRENCH): INHIBITION DU REMODELAGE INVASIF
 INVENTOR(S): LUND, Leif, Roge;
 DANO, Keld;
 STEPHENS, Ross;
 BRUENNER, Nils;
 SOLBERG, Helene;
 HOLST-HANSEN, Claus;
 NIELSEN, John, Romer
 FONDEN TIL FREMME AF EKSPERIMENTEL CANCERFORSKNING;
 LUND, Leif, Roge;
 DANO, Keld;
 STEPHENS, Ross;
 BRUENNER, Nils;
 SOLBERG, Helene;
 HOLST-HANSEN, Claus;
 NIELSEN, John, Romer
 LANGUAGE OF PUBL.: English
 DOCUMENT TYPE: Patent
 PATENT INFORMATION:

	NUMBER	KIND	DATE
DESIGNATED STATES	WO 9824474	A1	19980611
W:	AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW GH KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG		
APPLICATION INFO.:	WO 1997-DK555	A	19971208
PRIORITY INFO.:	DK 1996-1402/96		19961206
L17 ANSWER 6 OF 6	PCTFULL	COPYRIGHT 2006 Univentio on STN	
ACCESSION NUMBER:	1998000439	PCTFULL	ED 20020514
TITLE (ENGLISH):	MULTIVALENT COMPOUNDS FOR CROSS-LINKING RECEPTORS AND USES THEREOF		
TITLE (FRENCH):	COMPOSES MULTIVALENTS POUR LA RETICULATION DE RECEPTEURS ET UTILISATIONS ASSOCIES		
INVENTOR(S):	BACHOVCHIN, William, W.		
PATENT ASSIGNEE(S):	TRUSTEES OF TUFTS COLLEGE; BACHOVCHIN, William, W.		
LANGUAGE OF PUBL.:	English		
DOCUMENT TYPE:	Patent		
PATENT INFORMATION:	NUMBER	KIND	DATE
DESIGNATED STATES	WO 9800439	A2	19980108
W:	AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN GH KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG		
APPLICATION INFO.:	WO 1997-US11279	A	19970627
PRIORITY INFO.:	US 1996-8/671,756		19960628
	US 1997-8/837,305		19970411

=> d kwic 2-5

L17 ANSWER 2 OF 6 PCTFULL COPYRIGHT 2006 Univentio on STN

DETD The purified DPlVb of the invention can also be used to make antibodies (polyclonal, monoclonal, or recombinant) using conventional methods, involving immunization of, e.g., rabbits, mice, or human volunteers.

The antibodies can be used in standard ELISA assays to measure DPlVb levels in patients being tested for diseases which potentially involve increased . . .

We observed a striking increase in the number of dead cells in cultures containing the L-isomer of Val-boroPro (VbP), an inhibitor of dipeptidyl peptidase IV (DPPIV), compared to cultures containing media alone or the inactive D-isomer of the inhibitor, d-Val-d-boroPro--a toxicity control.

Dead cells were apparent as early as 4 h after the addition of the L-isomer of VbP, with maximal death occurring . . . 24 h (about 70%). When subpopulations of PBMC were tested for susceptibility to VbP- induced death, we observed that CD 1 9' B cells and CD I I b' monocytes were resistant, while purified T-cells (CD4'/CD8') showed greater sensitivity than whole PBMC.

(44-biotin, Sigma), and phycoerythrin streptavidin, CD26' T cells were isolated by sorting with the anti-CD26 mAb 1F7 (C. Moninioto, Dana-Farber Cancer Inst.). B cells were isolated by selection with biotinyl-anti-CD 1 9 mAb (D. Thorley Lawson, Tufts Univ.) And MACS microbeads (Miltenyl Blotec'). Sorted cell populations.

Antibodies Directed against DPlVb
The purified DPlVb of the invention, or fragments thereof, can be used to generate polyclonal or monoclonal antibodies specific for DPlVb, using conventional techniques. Such antibodies can be used in any of the many known conventional immunoassay formats to measure DPlVb levels in biological samples, e.g., samples of . . .

CLMEN 5 An antibody specific for DPlVb.

L17 ANSWER 3 OF 6 PCTFULL COPYRIGHT 2006 Univentio on STN

DETD . . . ability to proliferate and exhibit morphological characteristics specific for their lineages (such as macrophages, granulocytes, platelets, red blood cells, T cells and B cells). Stem cells and progenitor cells express CD34 on their surface while differentiated cells do not. Bone marrow includes stem cells as well as progenitor cells of the lymphoid (T and B cells), myeloid (granulocytes, macrophages) and erythroid (red blood cells) lineages.

. . . thymocytes in vitro. Other binding molecules which selectively bind to DPlV and have the ability to stimulate hematopoietic cells include monoclonal antibodies, polyclonal antibodies and fragments of the foregoing which are capable of. (1) binding to DPlV, and (2) stimulating hematopoietic cells and/or thymocytes in . . .

. . . well were incubated in 96 microtiter plates in CellGro Iscove's Modified Dulbecco's Medium (IMDM) and with or without (control)'the indicated concentrations of Pro-boroPro for 4 days. At the end of this incubation period, the cells were counted under the microscope. The cultures without Pro- boroPro contained 10,000 cells at the end of 4 days. The cultures containing Pro-boroPro had 53,000 cells at 10-'M, 38,000 cells at 10-'M and 42,000 cells at 10-'OM. The cultures

containing a growth factor mix (GF). . . 2
Umbilical cord blood cells were incubated under essentially the same
conditions as described
in the legend to figure 1, except that Val-boroPro was used as
stimulant at the indicated
concentrations. After 4 day incubation.

A: Bulk Umbilical Cord Blood; Total Cell Counts. Control culture: 0.2 x
10⁶ cells;
Growth factors 5 x 10⁶ cells; Val-boroPro: R106 (10-6M); R106
(10-8M); 4x10⁶ (10-'OM).

coupled beads
for positive selection. Cell preparation contained 98% CD34+ cells.
After 4 days of
incubation the culture containing 1 0- M Val-boroPro contained
8.5x 10⁶ cells, compared to
0.6x 10⁶ cells in the control and 4x1 06 cells in the incubation with
growth. . .

C: Percent of CD34+ cells remaining after 4 day culture: Cultures
incubated with Val-
boroPro contained between 10 and 15% of CD34+ cells after 4
day culture. Cultures
incubated with Growth Factors had only 4% of CD34+ cells remaining
(panel b). This
indicated that Val-boroPro has a growth stimulatory effect on
CD34+ cells in addition to an
effect on the differentiation of CD34+ cells into mature peripheral
blood cells. This is
supported by the observation that culturing these CD34+ cells in the
presence of Val-boroPro
and growth factors does not change the % CD34+ cells in the culture from
the percentage
seen with Val-boroPro alone, although the total number of cell
in this combined culture had
increased to 55 x10⁶ cells as compared to 8.5 x10⁶ cells in the
incubation with Val-boroPro
alone (panel a).

Dimerization of Lys-boroPro (homoconjugate) dramatically
increases the stimulation of bone
marrow cell growth when compared to the effect of the monomeric form of
Lys-boroPro.

Cultures were set up as described in the legend to Figure I except that
Lys-boroPro and the
homoconjugate were used, and incubated for 4 days.

Figure 4
Bone marrow cells were incubated as described in Figure I except that
Val-boroPro and the
homoconjugate were used in a 4 day culture.

A: Val-boroPro gave a similar expansion of bone marrow cells
as the growth factor
mix (GF), while the dinier more than doubled the. . .

B: (panel a): Isolated CD34+ cells (98% purity) incubated with Val-
boroPro gave up
to 20 fold increase in stimulation of cellular growth compared to an 18
fold increase with
growth factors over that. . .

(panel b): Percent of CD34+ cells remaining in culture after a 4 day incubation period: control 63%; GF 5%; Val-boroPro, 43%; homodinier 10%.

ability to proliferate and exhibit morphological characteristics specific for their lineages (such as macrophages, granulocytes, platelets, red blood cells, T cells and B cells). Bone marrow includes stem cells as well as progenitor cells of the lymphoid (T and B cells), myeloid (e.g., granulocytes, macrophages) and erythroid (red blood cells) lineages. Stem cells and progenitor cells express CD34 on their surface while differentiated. . .

a number of different methods. The most widely used is a positive immunological selection based on binding of these cells to anti-CD34- antibodies

immobilized on a solid support (Cellpro, Baxter). Other selection methods include negative selection where all cells not expressing CD34 are isolated away. . .

by observing a reduction in DAPI enzymatic activity following exposure to the non-active site binding agent. Exemplary non-active site binding agents include

antibodies to DAPI and fragments thereof which selectively bind to DAPI in a manner that results in the ability of the binding. . .

PCT/GB94/02615, DAPI-Serine Protease Inhibitors, Applicant Ferring V.V. (Ferring). Representative examples of the foregoing inhibitors are described below and include the transition-state analog-based inhibitors Xaa-boroPro, include Lys-BoroPro, Pro-BoroPro and Ala-BoroPro in which boroPro refers to the analog of proline in which the carboxylate group (COOH) is replaced with a boronyl group [B(OH)₂]₁. Alternative active-site. . .

the ability of the Val-boroProline compound to bind to CD26. In a most preferred embodiment, the compound of the invention is Val-boroPro (also referred to as PT-100). Because of the chiral carbon atoms present on the amino acid residues and on the carbon attached to the boron atom, Val-

boroPro can exist in multiple isomeric forms: (a) L-Val-S-boroPro, (b) L-Val-R-boroPro, (c) D-Val-S-boroPro, and (d) D-Val-R-boroPro. More preferably, the compound is L-Val-S-boroPro or L-Val-R-boroPro. In an analogous manner, the other boroProline compounds of the invention can exist in multiple isomeric forms; however, in general, the forms in which each amino acid chiral center has an L- configuration and the boroPro is in the R or S configuration are the preferred forms of the compounds.

The preferred antigenic peptides are peptides that bind to a T cell surface receptor or a B cell surface receptor, e.g., TCR/CD3, CD2, CD4, CD8, CD10, CD26, CD28, CD40, CD45, B7.1

and B7

Alternatively, the reactive moiety can be. . .

major histocompatibility complex

(MHC) molecule) which is present on the surface of a T cell or on the surface of a B cell. In certain embodiments, the second targeting moiety has a structure which mimics the substrate binding site of a protease that is present. . .

Specific examples of tumor antigens include: proteins such as Ig-idiotype of B cell

lymphoma, mutant cyclin-dependent kinase 4 of melanoma, Pmel- 1 7 (gp I 00) of melanoma, MART- I (Melan-A) of melanoma, p I. . .

that selectively

binds to a receptor that is expressed on the surface of a cell (preferably a T cell or a B cell).

IO, CD26, CD28, CD40, CD44, CD45, B7.1 and B7

According to yet other embodiments, the second targeting moiety is an antibody or antibody

fragment that selectively binds to an epitope expressed on the cell surface. The epitope can be a portion of any of the. . .

inhibitor inhibits such DPIV

enzymatic activity. Preferably, such binding agents are isolated polypeptides which

selectively bind the DPIV. Isolated binding polypeptides include antibodies and fragments

of antibodies (e.g. Fab, F(ab)2, Fd and antibody

fragments which include a CDR3 region

which binds selectively to the DPIV). Preferred isolated binding polypeptides are those that bind to an. . .

The invention, therefore, involves the use of antibodies or fragments of antibodies

which have the ability to selectively bind to DPIV and stimulate hematopoietic cells and/or

thymocytes under the conditions disclosed herein. Antibodies include polyclonal and

monoclonal antibodies, prepared according to conventional methodology.

Significantly, as is well-known in the art, only a small portion of an antibody

molecule, the paratope, is involved in the binding of the antibody to its epitope (see, in

general, Clark, W.R. (1986) *The Experimental Foundations of Modern Immunology* Wiley &

Sons, Inc., New York; Roitt, I.. . . Oxford). The pFc' and Fc regions, for example, are effectors of the complement

cascade but are not involved in antigen binding. An antibody from which the pFc' region has

been enzymatically cleaved, or which has been produced without the pFc' region, designated

an F(ab)1 fragment, retains both of the antigen binding sites of an intact antibody. Similarly,

an antibody from which the Fc region has been enzymatically cleaved, or which has been

produced without the Fc region, designated an Fab fragment, retains one

of the antigen binding sites of an intact antibody molecule. Fab fragments consist of a covalently bound antibody light chain and a portion of the antibody heavy chain denoted Fd. The Fd fragments are the major determinant of antibody specificity (a single Fd fragment may be associated with up to ten different light chains without altering antibody specificity) and Fd fragments retain epitope-binding ability in isolation.

Within the antigen-binding portion of an antibody, as is well-known in the art, there are complementarity determining regions (CDRs), which directly interact with the epitope of the antigen, and. . .

The CDRs, and in particular the CDR3 regions, and more particularly the heavy chain CDR3, are largely responsible for antibody specificity.

It is now well-established in the art that the non-CDR regions of a mammalian antibody may be replaced with similar regions of conspecific or heterospecific antibodies while retaining the epitopic specificity of the original antibody. This is most clearly manifested in the development and use of humanized antibodies in which non-human CDRs are covalently joined to human FR and/or Fc/pFc' regions to produce a functional antibody. Thus, for example, PCT International Publication Number WO 92/04381 teaches the production and use of humanized murine RSV antibodies in which at least a portion of the murine FR regions have been replaced by FR regions of human origin. Such antibodies, including fragments of intact antibodies with antigen-binding ability, are often referred to as chimeric antibodies.

to one of ordinary skill in the art, the present invention also provides for F(ab₁, Fab, Fv and Fd fragments; chimeric antibodies in which the Fe and/or FR and/or CDRI and/or CDR2 and/or light chain CDR3 regions have been replaced by homologous human or non-human sequences; chimeric F(ab₁) fragment antibodies in which the FR and/or CDRI and/or CDR2 and/or light chain CDR3 regions have been replaced by homologous human or non-human sequences; chimeric Fab fragment antibodies in which the FR and/or CDRI and/or CDR2 and/or light chain CDR3 regions have been replaced by homologous human or non-human sequences; and chimeric Fd fragment antibodies in which the FR and/or CDRI and/or CDR2 regions have been replaced by homologous human or non-human sequences. The present invention also includes so-called single chain antibodies.

and type that bind specifically to DPIV and inhibit its functional activity. These polypeptides may be derived also from

sources other than antibody technology. For example, such polypeptide binding agents can be provided by degenerate peptide libraries which can be readily prepared in solution, . . .

the matrix permits covalent coupling to free amino groups. A polystyrene derivatized to carry carboxylate groups can be covalently attached directly to Lys-boroPro through coupling to the free E amino group of the Lys side chain, or through a spacer linker which has a free amino group. Alternatively, a polystyrene derivatized to carry an amino group can be attached to, for example, Lys-boroPro through coupling via a spacer linker containing two carboxylate groups, one to couple to the F₁ amino group of Lys-boroPro, the other to the amino group of the amino-derivatized polystyrene.

the attachment of the compounds of the invention to insoluble matrices. Biotin can easily be attached to the E amino group of Lys-boroPro for example and the resulting conjugate will adhere with high affinity to avidin or strepavidin. A wide assortment of insolubilized derivatives of. . .

well or 24 well microtiter plates) at 104 cells/ml in CellGro Iscove's Modified Dulbecco's medium (Meditech) containing kanamycin (5ug/ml), desired concentration of Xaa-boroPro or other compound of the invention, and the absence or presence of Giant Cell Tumor- Conditioned Medium (GCT-CM, Origen) as source of growth factors. Xaa-boroPro or other compounds of the invention should be diluted to medium and added to culture only after cells are in culture tube.

CLMEN 5 The method of claim 1, wherein the inhibitor of DPlV is selected from the group consisting of a Lys-boroPro monomer, a Pro-boroPro monomer, a Val-boroPro monomer and a Lys-boroPro conjugate.

L17 ANSWER 4 OF 6 PCTFULL COPYRIGHT 2006 Univentio on STN

DETD . . . T-cell stimulatory effects of two inhibitory compounds used according to the invention (date of experiment: 3/9/95; patient id no: 1 655185; CD4 antibody count: 760; and number of cells/well: 0.4 x 10⁶). . .

invention
in lymphocytes of HIV-infected patients, compared to treatment using two control compounds
(date of experiment: 3/15/95; patient id no: 1227604; CD4 antibody count: 230; number of cells/well: 0. 16 x 10⁶; and 1/2 area of a 96 well plate).

invention
in lymphocytes of HIV-infected patients, compared to treatment using two control compounds

(date of experiment 3/23/95; patient id no. 1586496; CD4 antibody count: 830; number of 6)

cells/well: 0.4 x 10

Fig. 5 is a graph illustrating a stimulatory effect of an inhibitor according to. . .

invention induces

dose-dependent apoptosis in resting T-cells (these dosages are higher than the extremely low doses used according to the invention). CD 19+B cells and CD4+/CD8+Tcells were isolated (>90% and >97% purity, respectively). The cells were then incubated overnight in the presence or absence of VBBP. . .

CD26_ PBMC populations were found to be equally susceptible to DPPIV inhibitor induced death. PBMC were stained with the anti-CD26 monoclonal antibody, 4 EL, and then sorted into CD26+ and CD26- populations using a facstar plus dual lasar flow cytometry. The cells expressing. . . isolated as the CD26+ and CD26_ populations respectively. The purity of the populations as examined by staining with the anti-CD26 monoclonal antibody, 134-2C2, is >90%. The CD26+ and CD26_ populations were cultured overnight in the presence or absence of various concentrations of VBP.. . .

Fig. 8 is a graph showing that an inhibitor of CD26 (val-boroPro) inhibited the cytoplasmic enzyme as well.

hereby incorporated by reference. In this application, one of the families of molecules in the '493 patent is described as the Xaa-boroPro molecules, exemplified by Ala-boroPro, Pro-boroPro, and Gly-boroPro. These Xaa-boroPro molecules are all candidate compounds for use in the methods of the present invention. Two of these compounds are used in some of the examples described below; those compounds are Lys-boroPro (KPB) and Val-boroPro (VBP).

very low doses of the Val-boroPro and Lys-boroPro stimulated proliferation of PBMC from HIV-infected patients, but not PBMC from uninfected patients.

As shown in Fig. 1, at no concentration of the boroPro enzyme inhibitor did it affect the PBMC from uninfected individuals. The inhibitor, at moderate concentrations, also did not cause proliferation of PBMC. . .

Concordant results are shown in Fig. 2, a histogram showing that low doses of Lys-boroPro and Val-boroPro cause proliferation of PBMC of HIV-infected patients, while higher doses (I O-'M) do not have this effect.

Fig. 6 is a graph demonstrating that purified T-cells are highly sensitive to cytoplasmic T-cell dipeptidase inhibitors in moderate concentrations. CD19'B

cells and CD4'/CD8' T-cells were isolated to high purity and incubated overnight in Val-boroPro. The amount of cell death was determined by 7AAD flow cytometry analysis. Data represent % of cell death from duplicate samples. These. . .

the inhibitor is administered immoderate concentrations. CD26' and CD26- populations were incubated overnight in the presence or absence of various concentrations of Val-boroPro. The amount of cell death was determined by 7AAD flow cytometry analysis. Data represent mean % of death from duplicate samples. These. . .

Fig. 8 presents data showing the effects of an inhibitor useful in the invention, Val-

boroPro. The experiments were carried out using two preparations: purified DPPIV (i.e., CD26), and Jurkat T-cell cytoplasmic extract, described above (Jurkat cells contain the cytoplasmic T-cell enzyme, but do not bear CD26 on their surfaces). These preparations were incubated with varying concentrations of Val-boroPro, and enzymatic activity was determined i o by measuring the accumulation of the fluorescent cleavage product of 7-amino trifluoromethylcoumarin (AFQ released from the substrate Ala-ProAFC upon enzymatic cleavage. Val-boroPro inhibited both the enzyme DPPIV and the cytoplasmic T-cell enzyme in the Jurkat preparation.

L17 ANSWER 5 OF 6 PCTFULL COPYRIGHT 2006 Univentio on STN

DETD . . . neoplasms are interesting as targets for treatment, notably leukaemia such as acute leukemia (AL), chronic leuke-mia (CL), T-cell acute leukemia (T-ALL), B-cell acute leuke-mia (B-ALL), T-cell chronic leukemia (T-CLL), B-cell chronic leukemia (B-CLL), prolymphocytic leukemia (PLL), acute undifferentiated leukemia (AUL), acute myelogenous leukemia 5 (AML), chronic myelogenous leukemia (CML), chronic myelomonocytic leukemia (CMML),. . . pro-B-ALL; lymphoma such as Burkitt's lymphoma (BL), non-Hodgkins lymphoma (NHL), Hodgkins lymphoma (HL), follicular lymphoma (FL), diffuse large cell lymphome (DLCL), T-cell lymphoma, B-cell lymphoma; and myeolodysplasia.

alpha makroglobulin, tumour associated trypsin inhibitor, urinary trypsin inhibitor, leupeptin, pyroglutamyl-Leu-Arg-CHO, 6-aminocaproic acid, p-aminobenzamidine, bis(5-amidino benzimidazolyl)methane, alpha-N-acetyl-L-lysine methyl ester, tosyl-lysine chloromethyl ketone, or Boc-D-Phe-ProBoro-Arg-OH, i.e. all well-known inhibitors of the plasminogen/plasmin system which may be used in vivo with acceptable toxicity.

they all rely on the use of a carrier molecule having a high affinity for the chosen tissue (such as a carrier antibody or fragment thereof) to which is covalently or non-covalently linked the active

substance in question. For the purposes of the present invention, an antibody (or fragment thereof) directed against a specific antigens overexpressed in tumours (such as carcino-embryonic antigen, Lewis antigen, transferrin, multi-drug resistance pump, glucose. . .

CLMEN. . . alpha makroglobulin, tumour associated trypsin inhibitor, urinary trypsin inhibitor, leupeptin, pyroglutamyl-Leu-Arg-CHO, 6-aminocaproic acid, p-aminobenz-amidine, bis(5-amidino benzimidazolyl)methane, alpha-N-acetyl-L-lysine methyl ester, tosyl-lysine chloromethyl ketone, and Boc-D-Phe-ProBoro-Arg-OH.

=> s cancer? or neoplas? or tumor?

79320 CANCER?

23005 NEOPLAS?

66217 TUMOR?

L18 98755 CANCER? OR NEOPLAS? OR TUMOR?

=> d his

(FILE 'HOME' ENTERED AT 08:17:16 ON 29 JUN 2006)

FILE 'DGENE' ENTERED AT 08:18:01 ON 29 JUN 2006

FILE 'PCTFULL' ENTERED AT 08:18:10 ON 29 JUN 2006

L1 39 S BOROPRO OR PROBORO OR VALBOROPRO
L2 24 S ANTIBOD? AND L1
L3 357416 S ADDITIVE OR SYNERG? OR ENHANC?
L4 22 S L3 AND L2
L5 12 S L4 NOT PY>2001
L6 10 S L4 NOT PY>2000
L7 0 S L6 AND CD20
L8 3 S L6 AND LYMPHOMA
L9 2 S L4 AND CD20
L10 1049 S ANTI () CD20
L11 2 S L10 AND L4
L12 28 S BOROPROLINE
L13 2 S L12 AND L10
L14 25810 S B () CELL
L15 9 S L14 AND L2
L16 2 S L2 AND CD20
L17 6 S L15 NOT PY>2001
L18 98755 S CANCER? OR NEOPLAS? OR TUMOR?

=> s l18 and l17

L19 5 L18 AND L17

=> d his

(FILE 'HOME' ENTERED AT 08:17:16 ON 29 JUN 2006)

FILE 'DGENE' ENTERED AT 08:18:01 ON 29 JUN 2006

FILE 'PCTFULL' ENTERED AT 08:18:10 ON 29 JUN 2006

L1 39 S BOROPRO OR PROBORO OR VALBOROPRO
L2 24 S ANTIBOD? AND L1
L3 357416 S ADDITIVE OR SYNERG? OR ENHANC?
L4 22 S L3 AND L2
L5 12 S L4 NOT PY>2001
L6 10 S L4 NOT PY>2000
L7 0 S L6 AND CD20
L8 3 S L6 AND LYMPHOMA

L9	2 S L4 AND CD20
L10	1049 S ANTI () CD20
L11	2 S L10 AND L4
L12	28 S BOROPROLINE
L13	2 S L12 AND L10
L14	25810 S B () CELL
L15	9 S L14 AND L2
L16	2 S L2 AND CD20
L17	6 S L15 NOT PY>2001
L18	98755 S CANCER? OR NEOPLAS? OR TUMOR?
L19	5 S L18 AND L17

=> d ibib 1-5

L19 ANSWER 1 OF 5 PCTFULL COPYRIGHT 2006 Univentio on STN
ACCESSION NUMBER: 2001016301 PCTFULL ED 20020828
TITLE (ENGLISH): QUIESCENT CELL DIPEPTIDYL PEPTIDASE: A NOVEL
CYTOPLASMIC SERINE PROTEASE
TITLE (FRENCH): DIPEPTIDYL PEPTIDASE DE CELLULE QUIESCENTE: UNE
NOUVELLE SERINE PROTEASE CYTOPLASMIQUE
INVENTOR(S): HUBER, Brigitte, T.;
UNDERWOOD, Robert, H.
PATENT ASSIGNEE(S): TUFTS UNIVERSITY;
HUBER, Brigitte, T.;
UNDERWOOD, Robert, H.
DOCUMENT TYPE: Patent

PATENT INFORMATION:

	NUMBER	KIND	DATE
DESIGNATED STATES	WO 2001016301	A1	20010308
W:	AU CA JP AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE		
APPLICATION INFO.:	WO 2000-US24052	A	20000901
PRIORITY INFO.:	US 1999-09/388,413		19990901

L19 ANSWER 2 OF 5 PCTFULL COPYRIGHT 2006 Univentio on STN
ACCESSION NUMBER: 1999017799 PCTFULL ED 20020515
TITLE (ENGLISH): CYTOPLASMIC DIPEPTIDYLPEPTIDASE IV FROM HUMAN T-CELLS
TITLE (FRENCH): DIPEPTIDYLPEPTIDASE IV CYTOPLASMIQUE PROVENANT DE
LYMPHOCYTES T D'ORIGINE HUMAINE
INVENTOR(S): BOEHRINGER INGELHEIM PHARMACEUTICALS, INC.;
HUBER, Brigitte, T.;
UNDERWOOD, Robert;
KABCENELL, Alisa, K.;
SNOW, Roger, J.
PATENT ASSIGNEE(S): TRUSTEES OF TUFTS COLLEGE ET AL.
LANGUAGE OF PUBL.: English
DOCUMENT TYPE: Patent

PATENT INFORMATION:																		
	NUMBER	KIND	DATE															
<hr/>																		
WO 9917799 A1 19990415																		
DESIGNATED STATES																		
W:	AL	AM	AT	AU	AZ	BA	BB	BG	BR	BY	CA	CH	CN	CU	CZ	DE	DK	EE
	ES	FI	GB	GE	GH	GM	HR	HU	ID	IL	IS	JP	KE	KG	KP	KR	KZ	LC
	LK	LR	LS	LT	LU	LV	MD	MG	MK	MN	MW	MX	NO	NZ	PL	PT	RO	RU
	SD	SE	SG	SI	SK	SL	TJ	TM	TR	TT	UA	UG	UZ	VN	YU	ZW	GH	GM
	KE	LS	MW	SD	SZ	UG	ZW	AM	AZ	BY	KG	KZ	MD	RU	TJ	TM	AT	BE
	CH	CY	DE	DK	ES	FI	FR	GB	GR	IE	IT	LU	MC	NL	PT	SE	BF	BJ
	CF	CG	CI	CM	GA	GN	GW	ML	MR	NE	SN	TD	TG					
APPLICATION INFO.:	WO 1998-US20968 A 19981006																	
PRIORITY INFO.:	US 1997-08/944.265 19971006																	

L19 ANSWER 3 OF 5

ACCESSION NUMBER:

TITLE (ENGLISH):

TITLE (FRENCH):

INVENTOR(S):

PATENT ASSIGNEE(S):

LANGUAGE OF PUBL.: English

DOCUMENT TYPE:

PATENT INFORMATION:

PCTFULL COPYRIGHT 2006 Univentio on STN

1999016864 PCTFULL ED 20020515

STIMULATION OF HEMATOPOIETIC CELLS IN VITRO

STIMULATION DE CELLULES HEMATOPOIETIQUES IN VITRO

BACHOVCHIN, William;

WALLNER, Barbara

POINT THERAPEUTICS, INC.

English

Patent

NUMBER	KIND	DATE
--------	------	------

WO 9916864	A1	19990408
------------	----	----------

DESIGNATED STATES

W:

AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE
ES FI GB GD GE GH GM HR HU ID IL IS JP KE KG KP KR KZ
LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO
RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW GH
GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT
BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF
BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

WO 1998-US20343 A 19980929

US 1997-60/060,306 19970929

APPLICATION INFO.:

PRIORITY INFO.:

L19 ANSWER 4 OF 5

ACCESSION NUMBER:

TITLE (ENGLISH):

TITLE (FRENCH):

INVENTOR(S):

PATENT ASSIGNEE(S):

PCTFULL COPYRIGHT 2006 Univentio on STN

1998024474 PCTFULL ED 20020514

INHIBITION OF INVASIVE REMODELLING

INHIBITION DU REMODELAGE INVASIF

LUND, Leif, Røge;

DANO, Keld;

STEPHENSON, Ross;

BRUENNER, Nils;

SOLBERG, Helene;

HOLST-HANSEN, Claus;

NIELSEN, John, Romer

FONDEN TIL FREMME AF EKSPERIMENTEL CANCERFORSKNING;

LUND, Leif, Røge;

DANO, Keld;

STEPHENSON, Ross;

BRUENNER, Nils;

SOLBERG, Helene;

HOLST-HANSEN, Claus;

NIELSEN, John, Romer

English

Patent

LANGUAGE OF PUBL.:

DOCUMENT TYPE:

PATENT INFORMATION:

NUMBER	KIND	DATE
--------	------	------

WO 9824474	A1	19980611
------------	----	----------

DESIGNATED STATES

W:

AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE
ES FI GB GE GH HU ID IL IS JP KE KG KP KR KZ LC LK LR
LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE
SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW GH KE LS
MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE
DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI
CM GA GN ML MR NE SN TD TG

WO 1997-DK555 A 19971208

DK 1996-1402/96 19961206

APPLICATION INFO.:

PRIORITY INFO.:

L19 ANSWER 5 OF 5

ACCESSION NUMBER:

TITLE (ENGLISH):

PCTFULL COPYRIGHT 2006 Univentio on STN

1998000439 PCTFULL ED 20020514

MULTIVALENT COMPOUNDS FOR CROSS-LINKING RECEPTORS AND
USES THEREOF

TITLE (FRENCH): COMPOSES MULTIVALENTS POUR LA RETICULATION DE
 RECEPTEURS ET UTILISATIONS ASSOCIES
 INVENTOR(S): BACHOVCHIN, William, W.
 PATENT ASSIGNEE(S): TRUSTEES OF TUFTS COLLEGE;
 BACHOVCHIN, William, W.
 LANGUAGE OF PUBL.: English
 DOCUMENT TYPE: Patent
 PATENT INFORMATION:

NUMBER	KIND	DATE
WO 9800439	A2	19980108

DESIGNATED STATES

W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE
 ES FI GB GE HU IL IS JP KE KG KP KR KZ LC LK LR LS LT
 LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI
 SK TJ TM TR TT UA UG US UZ VN GH KE LS MW SD SZ UG ZW
 AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB
 GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR
 NE SN TD TG

APPLICATION INFO.: WO 1997-US11279 A 19970627
 PRIORITY INFO.: US 1996-8/671,756 19960628
 US 1997-8/837,305 19970411

=> s wo 0071135/pn
 L20 0 WO 0071135/PN
 (WO71135/PN)

=> s wo 2000071135/pn
 L21 1 WO 2000071135/PN
 (WO2000071135/PN)

=> d his

(FILE 'HOME' ENTERED AT 08:17:16 ON 29 JUN 2006)

FILE 'DGENE' ENTERED AT 08:18:01 ON 29 JUN 2006

FILE 'PCTFULL' ENTERED AT 08:18:10 ON 29 JUN 2006

L1 39 S BOROPRO OR PROBORO OR VALBOROPRO
 L2 24 S ANTIBOD? AND L1
 L3 357416 S ADDITIVE OR SYNERG? OR ENHANC?
 L4 22 S L3 AND L2
 L5 12 S L4 NOT PY>2001
 L6 10 S L4 NOT PY>2000
 L7 0 S L6 AND CD20
 L8 3 S L6 AND LYMPHOMA
 L9 2 S L4 AND CD20
 L10 1049 S ANTI () CD20
 L11 2 S L10 AND L4
 L12 28 S BOROPROLINE
 L13 2 S L12 AND L10
 L14 25810 S B () CELL
 L15 9 S L14 AND L2
 L16 2 S L2 AND CD20
 L17 6 S L15 NOT PY>2001
 L18 98755 S CANCER? OR NEOPLAS? OR TUMOR?
 L19 5 S L18 AND L17
 L20 0 S WO 0071135/PN
 L21 1 S WO 2000071135/PN

=> s l21 and l1
 L22 1 L21 AND L1

```
=> s 122 and l2  
L23          1 L22 AND L2  
  
=> s 123 and l18  
L24          1 L23 AND L18  
  
=> s 124 and l14  
L25          0 L24 AND L14  
  
=> s l4 and lymphom?  
     18476 LYMPHOM?  
L26          7 L4 AND LYMPHOM?  
  
=> s 124 and lymphom?  
     18476 LYMPHOM?  
L27          0 L24 AND LYMPHOM?  
  
=>  
---Logging off of STN---
```

```
=>  
Executing the logoff script...
```

```
=> LOG Y
```

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	54.48	55.91

```
STN INTERNATIONAL LOGOFF AT 08:38:16 ON 29 JUN 2006
```